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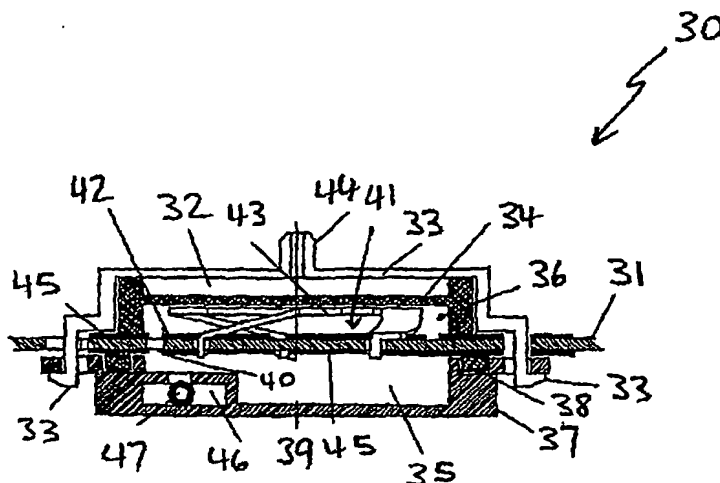
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(54) Title: SEALED CAPACITIVE PRESSURE SENSOR FOR NON-INVASIVE BLOOD PRESSURE MONITOR



(57) Abstract: A sealed capacitive pressure sensor (30) has a body with a first (32) chamber and a second chamber (35). The chambers are separated from each other by a printed circuit board (31). The first chamber (32) has an air inlet (44) and at least one opening (40) into the second chamber (35). A flexible membrane (34) is located in the first chamber (32) to form two sealed cavities (32, 36) in the body. A first cavity (32) is formed between the air inlet (44) and the flexible membrane (34) and a second cavity (35) is formed by space (36) in the first chamber on other side of the flexible membrane and the space (39) in the second chamber (35). A capacitor is located in the second cavity (35) within the first chamber portion (36) of the second cavity (35). The capacitor is formed by a pair of electrodes (42, 43) adapted to have variable spacing between them according to

the air pressure within the first cavity (32). One electrode (42) can be a copper layer on the printed circuit board (31), while the other (43) can be formed from a disc spring. The air pressure within the second cavity (35), which can change with temperature, equalises between the first chamber portion (36) and the second chamber portion (39) of the second cavity due to movement of air through the opening (40).